

Andy Hait: Great. Thank you so much. Again, my name is Andy Hait. I'm an Economist at the US Census Bureau at our headquarters office here in Maryland. And I am on the line today with my friend and colleague, (Tara Dryden). And (Tara) and I are going to be talking with you all today about the very last of the two publications that we released as part of the 2017 Economic Census.

This is actually going to be the last Webinar for our 2017 Econ Business Webinar series. And I want to say thank you to all of you who have attended a number of those Webinars from our First Look Webinar we did almost two years ago to one that we did about our local area data, what we call Geographic area Statistics, and then finally today to the one about the Comparative and Bridge Statistic Report.

In a couple of ways I'll say I sort of think of today's Webinar as being one of the most important ones that we do in the entire series. In fact, I always sort of think that we save these last two publications for last, because in many ways they are the most important of the programs of the publications that we do as part of the Economic Census because they guide usage of data not only of the Economic Census data, but also a lot of other data products that we release to Census Bureau and even a lot of non-Census Bureau data.

So I'm going to get us started today. I'll talk for a little bit about the Economic Census and some of the statistics about this. Then I'm going to turn it over to (Tara) and she's actually going to show you a live demonstration of our data.census.gov platform that you can go to to get access to the two data products that we're going to be talking about today.

Then we're going to come back at the end and we'll take some - do some closing marks and then we'll take some questions. On the question side, for those of you who called in using the phone, you will of course, have the ability to ask you a question using the telephone to our Verizon operator, (Madison). So thank you so much (Madison) for being on today. We will do those questions over the phone at the very end.

For those of you who did connect in using the computer using the audio broadcast feature in WebEx, you are free to ask any questions that you have in the chat itself. I am a single tasking unit, so I will probably not be able to get to the chat questions during the presentation, but we will definitely answer your chat questions at the very end.

So to get us started, I want to talk a little bit about the Census Bureau of course. You have to be living under a rock to not know that the Census Bureau just conducted the largest undertaking that we do in the United States.

The counting of the US population is done every ten years. And on those decennial census years, we have typically almost 500,000 people working for the Census Bureau to count the US population. The 2020 Decennial Census was unlike any other decennial census. Conducting one during the middle of a pandemic was unbelievably difficult. I give huge kudos to my colleagues on our demographic programs area for doing so.

But as important as the decennial census is, it is really just one of the more than 130 things that we do each and every single year. We do a great program called American Community Survey or the ACS. I'm sure many of you are already very familiar with the ACS. It's an amazing data product that provides unbelievably useful demographic, socioeconomic and housing data.

But the part of the Census Bureau that (Tara) and I sort of care the most about is our economic side, the side of the Census Bureau that does each of our business programs. We conduct nearly 60 monthly, quarterly and annual and periodic surveys. They include monthly surveys like the Monthly Retail Trade Survey.

Many of you, when you're sitting at home watching the evening news often we'll hear the reporter come on and say, "The Commerce Department announced today that sales of automobiles in the month of August were X." And that shows how difficult car dealers are having in getting inventory for cars - on cars that they're trying to sell.

That Monthly Retail Survey we actually conduct at the Census Bureau. It's one of the 17 leading economic indicator surveys that we conduct, and it is at the top of this pyramid that you see here on the right-hand side of the slide.

Annually we do a number of programs too. Two of the programs that I spend most users to are programs called Common Business Patterns and Nonemployer Statistics. These are annual programs that publish information on employers businesses. Those are businesses with paid employees that's covered by County Business Patterns and by self-employed people which are covered by the Nonemployer Statistics Program -- two really great programs that provide information about the economy in your local county.

But at the bottom of that pyramid is our Baseline Benchmark program. Every five years we do a complete count of the economics of employer business in the United States. That is done as part of the Economic Census.

Now when I think about all of the characteristics of all the data we published in the Census Bureau, there are really only two characteristics that are common across every single economic program that we conduct at Census. One of those characteristics is geography. Every single one of our programs publishes data by some dimension of geography. Some of them, of course, are national data only. Others publish data at the nation, state, metro, county place and even ZIP Code levels.

But the other characteristic that is very important and really the topic for today's discussion is NAICS, the North American Industry Classification System. Now as its name implies, NAICS is a trilateral agreement between the US, Canada and Mexico. That means that every five years these three countries meet and they're meeting of course all during the period, and they discuss changes that are happening in their

economies and how they might want to change the classification system to measure those changes in their local economies.

At the two, three, four and five digit NAICS code levels the three countries have to agree. So those three levels or excuse me, five levels of geography are completely comparable between the US, Canada and Mexico, At the six digit NAICS code then the three countries are allowed to sort of go their own ways. US can recognize certain six digit NAICS codes that Canada and Mexico may not. And we have a Website called The NAICS Web site that provide information about this classification system.

As we are working on changes to those to those businesses, excuse me, to the classification system, those proposed changes are announced in Federal Register notices. And as you can see, I've included a link to the codes themselves. This is where you could go in and see what are the planned industry changes, NAICS changes for the 2022 NAICS classification system. We do the NAICS changes on the same five year cycle as we do the Economic Census. I know there's no - there is not a - that is not a - that was done on purpose I guess what I'm trying to say.

There are a couple of Census Bureau programs that don't publish data on the NAICS basis. A few of them are shown over on the right-hand side. And no, I know that you can't quite read those slides over there on the right-hand side. But the first one is a screenshot from one of our monthly economic indicators, EM3, the manufacture of shipments, inventories and orders. This is looking at shipment data by industry group.

But as you could maybe just barely make out on the left-hand side of that screenshot, there is no NAICS codes. They don't publish data on a NAICS basis, but nearly every one of our other programs do. The coverage of NAICS does vary widely from survey to survey. Some of our economic programs only publish data at the two, three and four digit NAICS code levels, programs like Quality Workforce Indicators. Others ones publish data at the full hierarchy two through six.

The vintage that we publish these NAICS codes does - also does vary by survey and survey year. So for example, in the 2017 Economic Census, we publish data on the 2017 NAICS basis. But the 2018, 2019, 2020, and 2021 County Business Patterns Programs that again count those employer businesses. They will continue publishing on the 2017 NAICS basis until they reach calendar year 2022, in which case for the 2022 County Business Patterns, they will flip the switch and now publish data on the 2022 NAICS basis.

It is also really important to note that most other federal agencies, federal statistical agencies, and even a lot of private sector data providers also publish on the NAICS classification system. And again, just like the Census Bureau, their coverage and their business does also vary by provider.

There are a couple of programs that for whatever the reason, and I'm not going to spend any time talking about those reasons, but those programs still publish on the old Standard Industrial Classification

system, or SIC basis. I'm not going to call out any but there are still some that publish on that basis which ended in 1997. That was the last year that we actually published data on the SIC basis at the Census Bureau.

There are a lot of resources that are available to you to help you understand the classification system, which is included in the NAICS Web site including a search feature which you can see here in the upper left-hand corner of the screen shot. This search feature allows you to search for 2017 NAICS codes and descriptions, 2012 NAICS codes and descriptions and even 2007 NAICS codes and descriptions.

Now you may be thinking, okay, why does it let me search for all these different vintages? And that is because with each of the NAICS classification systems there are changes that are made. Industries sort of go out of, I don't think out of favor, but they are in decline. And industries then get consolidated into other industries because we can no longer publish data because of that decline.

Other industries come in the birth. Industries that maybe were just in their generation in 2007 and 2012 now have reached a certain level of maturity where they now sort of warrant having their own classification system, their own code under NAICS. So they are born.

To help people understand all those changes we have a lot of reference files on this NAICS Web site. And I would really encourage you all to check this site out. I have it bookmarked. I refer to it so often that if I didn't have the bookmark I probably would remember the link anyway. But this is a great resource. And again, this is where you're going to go to get those federal register notices.

Now if you work through those reference files that I mentioned and you looked at the 2017 NAICS system and how it relates to the 2012 NAICS classification system you would actually see that there are six NAICS sectors that have been impacted by some type of NAICS change.

In the upper left-hand corner is a very simplified view of the NAICS changes that were made to NAICS 21, which is the mining, mineral and extraction and natural gas industry. As you can see going through 2012 to 2017 NAICS a piece of the crude petroleum and natural gas extraction industry, just the crude petroleum extraction piece was pulled out of NAICS code 21111 and became the new NAICS Code 2111120, crude petroleum extraction.

The natural gas extraction piece of NAICS Code 211111, the 2012 code, just that piece was combined with natural gas liquid extraction, 2012 code 2111112. And those two pieces that one school industry and a piece of the other industry were combined to form the new industry 211130 Natural Gas Extraction.

Right below it you can see that there was a change that was made to lead ore and zinc ore mining and copper ore nickel ore mining. Those two industries in 2012 were then combined in the 2017 NAICS system to the new code 212230 Copper, Nickel, Lead and Zinc Mining.

And you can see that this same type of change, these tearing apart of pieces of industries, the combining of industries like lead ore and copper ore, this green highlighted section, that also happened over in the manufacturing sector. Pumps and pumping equipment, manufacturing and measuring and dispensing pump manufacturing were combined. And four industries related to household appliances were combined to form a new code for major household appliance manufacturing.

Now, as I mentioned, there's a lot of reasons why these types of changes occur. This consolidation of the appliance manufacturing industry has happened because this industry there are so few manufacturers in the United States of some of these types of products that we could no longer publish the detailed data for that industry.

It's not just that an industry is in decline. Sometimes that is due to simple consolidation. Businesses buy each other out and they combine to form these big mega corporations. As the number of companies in an industry decline our ability to publish detailed data for that history also declines and finally gets to the point that we can't publish anymore. And that's what in this case you can see those codes of four separate industries for cooking, refrigeration and freezers, laundry equipment and other major household appliance manufacturers those four industries have been combined into a new code 335220.

The third screenshot down there below is for the retail sector. You can see there's some pieces of retail sector that were also torn apart. The blue highlighted case is one where it's a simple recode. And (Tara) will about a few minutes about that. And as you can see we have a consolidation of three codes for electronic shopping, electronic auction and mail order houses have been combined into the new code, Electronic Shopping Mail Order Houses.

A lot of times, again, these consolidations occur either because of decline or because of consolidation of companies into - to form larger corporations reducing the number of companies in the industry. Sometimes it's also because the distinction of what accounts for a particular type of business becomes so blurred that it's impossible to separate them anymore. It's hard to imagine any type of electronic shopping business that doesn't also provide mail order services. So there's some consolidation there.

So you have those three sectors. And then you also had these last three sectors NAICS 51, in the upper left-hand corner is the information sector, you could see there's been some changes to the NAICS classification system codes there.

In the upper right-hand corner is NAICS 53. And you can see a whole bunch of industries that have been recoded there. And finally down at the bottom is NAICS 54 which is the professional, scientific and technical services sector. And this is actually the one sector that has a brand new industry that we've never had published before and that is research and development and nanotechnology. This is a brand new industry that's now being published for the first time as part of the 2017 Economic Census.

Now these overtly simplified views of these NAICS changes give you some information about what the change that was made. So you now know, okay, if I'm trying to find data, for example, on household laundry equipment manufacturers I'm going to find that data in the 2012 Economic Census data products but I'm not going to find data specifically for household laundry equipment manufacturers in the 2017 Economic Census because that code has now been combined with three other ones to form a new industry for major household appliance manufacturing.

But what you cannot tell in looking at these very simplified views of these NAICS changes, nor can you tell by looking at the NAICS manual itself, is the significance of that change. So when we think about this new industry for major household appliance manufacturing knowing how much of the major household appliance manufacturing industry, that new 2017 NAICS Code, how much of that industry came from each of these four pieces, you cannot tell that from the NAICS manual.

You cannot understand the significance, for example, of this retail change that has occurred. The fact that discount department stores that have been insignificant perishable grocery sales became department stores. But those discount department stores that have the significant amount of perishable grocery sales they were combined with warehouse clubs and super centers to form the new industry, warehouse clubs and supercenters.

There's no way of telling from that NAICS manual how significant that change was. And therefore there's really no way of you knowing as a day user whether the data between 2012 and 2017 are really comparable or whether this NAICS classification change has so affected the classification system, the comparability of the data, that now you can no longer compare that data over time.

And that's why I said really early on in this Webinar how important this report, this pair of reports are to not only Census Bureau economic data users who want to do those time series comparisons and need to make sure that the thing that they're comparing over time is in fact complicated, but it's also really important to all data users. I personally am quite frustrated when I see third party data providers publishing data on the new 2017 NAICS basis and publishing old data on the old 2012 NAICS basis and not providing any kind of comparability resources to help people know is the industry that I care about comparable between 2012 and 2017?

That's what these two reports do. And with that, I'm now going to turn this over to (Tara), who's going to talk with you all a little bit more about these four different scenarios and then actually show you live how to get to this data. So, (Tara), all yours.

(Tara Dryden): Hi everybody. Hi. So the Bridge Report does show four different scenarios and that change between the NAICS Census. So as Andy just showed you we've gone through all of the different changes in the NAICS structure from 2012 to 2017. This report is only going to publish the NAICS Code that had to change between the two years. The Bridge

Report is something that tabulates only the 2017 data but we tabulate it on the 2012 NAICS basis and on the 2017 NAICS basis together to bridge the data backwards and forwards.

So there are four types of changes. We have recodes, full consolidations, partial consolidations and splitters. As Andy mentioned earlier recodes are pretty simple. the NAICS industry did not change at all.

For example, in the blue box formal wear and costume rental, the actual independent industry is the same. It just received a new code going from 532220 to 532281. And it simply just places this industry in a different section on the NAICS structure.

The second piece is you're full consolidation. And this is when we have two or more complete industries that combine into one industry. And as Andy went through a couple of these before but in 2012 we had three independent industries electronic shopping, electronic auctions and mail order houses. And now they're combined to the new industry NAICS 454110, Electronic Shopping and Mail Order.

The third scenario is your partial consolidation. And this is when you have part of two or more industries combined to form one new industry. So in the bottom table, in the orange, we have an example where in 2012 on the left we had three independent industry department stores except discount, then discount department stores and then warehouses, clubs and supercenters.

And what we decided to do in the NAICS structure is we removed the discount department stores. And we took a portion of that and combined it with department stores except discount and created the new code 452210, Department Stores.

And you can see the NAICS was changed because this is actually a new industry because it's of the combination of a full industry and a partial industry.

And then the same thing in the bottom Warehouse, Clubs and Supercenters was combined with a portion of discount department stores. And it received a new code 452311, Warehouse, Clubs and Supercenters.

Now if you notice the title in those 2012 and 2017 is the same, Warehouse, Clubs and Supercenters but the NAICS Code is different. And that indicates it's actually a new industry because it contains more companies. The companies that had significant perishable grocery sales are combined in with the old Warehouse, Clubs and Supercenters. So as Andy was mentioning earlier this is really important to notice.

And the last scenario we have is splitters. And this is where one industry is split out into two or more new industries. We didn't have any of these for 2017 but we did have some scenarios from 20, 2007 to 2012. For example one of them was our other electric power generation. And basically we split that out to solar, wind, geothermal, biomass and then

all other electrical power just to show and celebrate the growth of these industry.

So next we're going to move on to, sorry, a sample of the comparative tables. So this table publishes the 2017 data on the prior AN vintage which is the 2012 NAICS structure. And it also includes the 2012 data.

It includes all two through six digit NAICS Codes. And it shows four basic data items. We have the number of establishments, your sales, value of shipments or revenue, your annual payroll and your number of employees. This table is important because it allows users to accurately compare the 2017 data and the 2012 data and know that the classification system is consistent because we were tabulating the 2017 data on the 2012 basis.

And so this ensures an accurate time comparison. And just as a side note, we have a general compatibility note at the bottom. Users still, when comparing data tables within the bureau or outside the bureau, still need to always confirm that the other characteristics are the same, for example your geography level.

Okay, here we have a sample of our bridge table. And this table only publishes 2017 data. And we published the 2017 data on the 2017 NAICS structure and on the 2012 NAICS structure bridging the data backwards and forwards. That's why we have two tables.

Table 1 is '17 to '12 going backwards and Table 2 is 2012 to 2017 going forward. I will dive into this in a live demo soon. Again, the bridge table only shows industries that did change. We do not include everything else within the Economic Census.

So this table, what it does, it shows you the total for the industry and then the breakouts of the one or more parts that make up that industry. And it shows the total and the breakouts in both directions. And this helps you understand the impact of the NAICS change. So you'll get to see the amounts of data which caused the impact.

As Andy was mentioning earlier you don't really get to see that in the NAICS definition on the NAICS Web site. And again just another comparability note, you know, to ensure when you're looking at data to make sure everything else is consistent too.

Okay, so now I'm going to jump into the live Web site. So we're going to go to [data.census.gov](https://data.census.gov).

Okay, so this is where we contain most of the Census Bureau's data sets. I will note not all of them are in there. Some of the annual surveys are not in here yet but they're being integrated soon.

In this Web site we do have a search bar right here. And this can be a little bit tricky. Sometimes you need to know the exact table name. And so what we recommend for new users is to go ahead to the advanced search. So right here underneath the search bar there's a little place to go to the advanced search.



And within here we have some filters on the left. So if you go to the left, under Browse Filters, we want to first filter out on the survey. So I'm going to click on Surveys. And then we come here and we see all of the surveys that publish their data in data.census.gov.

Today, we're talking about Economic Census data. So I'm going to click on Economic Census. And now we have two different types of reports. The core reports are publications in which all of the industries published the same data, And then the sector reports are for individual data tables that pertain only to one sector.

So today with our bridge and Comparative Reports along with like our geographic area series data they'll be found in the core report. So I'm going to click Core Statistics. And then in here we find all of the data tables that we publish in the Econ Census. The first one is the Comparative Statistics. So we're going to view that one first and then I'll go to the bridge.

So once you select the box for Comparative Statistics then you're going to go down and Click Search. I don't know how to move it. Once you get in here this does a search on those comparative tables. And as you can see we do have two tables.

So what we want to do is look at the top table, which is the one that was just released last week, which compares data in the title name from 2017 to 2012. The data table we published five years ago, as you can see, is the 2007 to the 2012. So we're going to click on the first table and that'll bring us into the Comparative Report.

Now remember the Comparative Report is all industries two through six digits. And we can go filter on specific NAICS Codes to different ways. I'm going to first show you to use the filter up here on the left by the download. And then later I'm going to show you how to go to customize table and filter in that way.

So let's click on Filter. And we come in here. And what I would like to shelter on is - so this opens up to like the table filter we did earlier, it looks exactly the same. But as you can notice up here there's an oval, in like a teal color, that lets us know we are on this particular table.

So we've already filtered down to our table. And now I'm going to filter down to the NAICS Code I want to look at. So I'm going to codes on the left here. I want to filter on the NAICS industry code. So I'll click that. And I could look at just every four digit or every three digit across the Economic Census but for today I want to go look at some wholesale information.

So I'm going to scroll down to the wholesale trade and click on Sector 42 Wholesale Trade. And then within here I want to go look at NAICS Code 4242. So it presents to you only the three digits to start your drill down. So I'm going to go 424 Merchant Wholesaler's Nondurable Goods.

And then within there I'm going to go to 4242 and look at drug and druggists. And within here in order to get the NAICS Code to populate on your table you must always check one of the boxes. So like before here you had to check the four digit box if you wanted all the four digits. But we're drilling down here to 4242 so I'm going to check the box right here 4242 drug and druggists sun-dried merchant wholesalers.

And then after that I'm going to click up here in the upper right, Done. And I'm going to get to see the data for just this particular four digit. I'm going to shrink the table up a little bit NAICS Code. Shrink the column. We have a number of establishments, our sales, value of shipments or revenue, our annual payroll and our number of employees.

Basically this particular industry generated \$931.7 billion in sales for 2017. And this is basically a 36.1% increase from 2012. There's the 2012 data first and then the 2017 data. And this actually is the third largest four digit industry within wholesale.

So if you happen to want to look at the rest of the four digits in wholesale we can just jump right back to filter. And I can go select right here, four digits and select all of the four digits. Sorry over here. This is all of the four digits in general and over here in this column is the wholesale trade drill down.

So I'm going to click the four digits right here under the wholesale trade. And then I'm going to go ahead and hit Done. And here we have all of the four digits in wholesale. If you want to look at all of their data and their comparisons from year to year. Let me just shrink up the columns.

And I say, as I said, 4242 that NAICS industry was the third largest. And if we just scroll down through the data here it is at \$931.7 billion. As we scroll down a little further you can see some other large industries grocery and related products 991 and a few more large ones.

So that's how you move around in comparative using the filter on the left. Now I'm going to jump in to customized table on the right. And it's basically going to do the same thing but you get this layout right here. And to do the filters for NAICS Codes we're going to click on here 123 Code.

So we have a survey, we have geography here, et cetera. So I'm going to click on the Code here. I'm going to jump out of wholesale and remove the wholesale information and click and click or I can just clear code down here on the right. So I'm just going to clear out all the codes that I've selected. Yes, clear your selection.

This brings me back to the entire comparative table. Now I'm going to start the new filter fresh with 123 Code. And I'm going to jump over to retail. So in the beginning I'm going to click 44 to 45 Retail Trade. Now the industry I want to do an example on is what we talked about earlier is the Warehouse, Clubs and Supercenters. So that is industry - in industry industry 453.

So we're going to go into industry 452. And I'm going to bring up all of the NAICS in 452. So selecting this sector in the second column brings retail trade into this grouping here. And now I'm going to go to the three digit 452 General Merchandise Stores.

And it's just going to keep building to the right as we go down from two digits in the second column, three digit in this column now we're going to the four digit. And I must select a box for each industry I want to see in the table.

So I'm going to select the three digit. And I'm also going to click on this four digit and this one and select the boxes that go with it. So now it pops the four digit over. I'm going to select that one. I'm going to pick this five digit which pops it over here.

And it keeps going. And I'm going to select these five digits which pop it over here and that one. And I'm going to go back to this four digit in this third column and do the same process. I click that four digit and then I clicked the box.

Then I click the two fives underneath and it pops it over to the right. Click the five and click on the six pops to the right, click on the six I need to come back and do this other five digit.

Click the box. Click the one underneath. Click the box. It takes a little while but I want to just see everything underneath the three digit. So I'm going to close and it's going to populate everything in the 452 group. I'm going to shrink my column real quick. oh we're good.

Okay. So in the Comparative Statistics report, if we scroll down we can see our new, our data that it's published on a 2012 NAICS basis. So if you remember an example 2012 had three independent codes, we had department stores, we had department stores except discount, and then we had the Warehouse, Clubs and Supercenters.

And since we are tabulating the 2017 data on the 2012 basis it's tabulating on the 2012 NAICS Codes. So we can see a direct comparison of what's going on with these industries. So for example, Warehouse, Clubs and Supercenters, right here, went from \$406 .3 billion to \$47.2 billion which is a 15.7%.

This allows you to see the true increase of the original Warehouse, Clubs and Supercenters which is only a 15.7% increase. But if you go to our Geographic Area Series that was released, well over a year ago, and you were to pull up the 2012 report for GAS, Geographic Area Series, for just the code warehouse and supercenters you would definitely see the \$406.3 billion .

But if you were to pull up Warehouse, Clubs And Supercenters by the title only in 2017 it would have a larger number. It would be \$550.2 billion because if you remember Warehouse, Clubs and Supercenters in 2017 also included a portion of the discount department stores.

So by using the Geographic Area Series data by the title only you would think that Warehouse, Clubs and Supercenters grew by a full 35.4%. But that's not actually true. That's not true growth. And this is where when people are comparing data you really need to know what's inside that data and how the NAICS changed.

The true growth of the original Warehouse, Clubs and Supercenters only grew 15%. The other portion of that growth was due to the additional companies that came from this NAICS Code and were merged into here. And the same thing that goes with the department stores. The other piece of discount department stores remember was added to department stores.

So now we want to see the impact of that other piece. And that's where we're going to use the Bridge Report. So I'm going to switch over to the Bridge Report. And instead of backing out of all of my filters, including the survey and the table name, we're going to go right back to the beginning of our search at data.census.gov. And to do that all you have to do is click on the Census logo up on the left and it'll bring you right back to the beginning again.

Okay, so next we're going to go back into the advanced search. And we're going to go back to the browse filters on the left. And we're going to click on Surveys. And we're going to click Economic Census again. Go back to the core statistics and we're going to go find the Bridge table.

And this is easy because the users can just see all of the different tables that we have. Here's the franchise, et cetera. So here are the two bridge tables. We have, remember I said we bridge forwards and backwards, so we're going to look at both of the tables. We're going to go into Bridge Table 1 first, click the box and then hit Search.

Again, it's bringing up two tables, but the bottom one is from five years ago. It's the 2007 to 2012. So we're going to look at the current release which is 2017 to 2012. Okay, in here again we're going to go back and just look at the Warehouse, Clubs and Supercenters as our example to continue with that.

So I'm going to go to customize table to do my drawdown because this has all of the NAICS Codes in here. We're in the table. I'm going to go to 123 Code. Hit Industry Codes NAICS. And I'm going to scroll, instead of picking the top portion, I'm going to scroll down to the sector that I want which is retail trade.

And then over here in retail trade I'm just going to pick all of the six digits within retail trade. Okay, and I hit Close and it populates everything that is the retail trade NAICS Code that is in this report. Okay, I'm just shrinking the columns a little bit, can't see a little of that one.

Okay, so our four data items there to the right. And I tend to focus on sales often instead of the other items. Number of establishments is first. Okay, as you read the title of the report it's industry bridge statistics on a 2017 NAICS basis with distribution among 2012. So it's

2017 you can see here on the left with the 2012 distribution over on the right.

So we're going to look at Warehouse, Clubs and Supercenters here on the left. And we have the industry total. And in 2017, remember I told you from the Geographic Area Series report, the total was \$550 billion.

But we're going to now see the total here and then the breakout portion. So from 2012 remember this industry comprised of the Warehouse, Clubs and Supercenters. The warehouse clubs portion is \$152.6 billion and the supercenters were \$317.6 billion. And the additional discount department stores, the piece with the significant perishable grocery sales, makes up \$80 billion.

And this is where you can see the impact of the change. It's this \$80 billion is the portion of the change that instead of the industry growing by 15.7% the industry is now kind of showing it's 35.4%. But this represents that difference. It's A big chunk, basically 19% of that change.

And if you recall in the example when we got rid of discount department stores in 2012, there were two pieces, the significant perishable goods and the insignificant. The significant piece went here with warehouse but the insignificant piece went up to department stores.

And that line is right here because here is your department stores which is made up of the old department stores except discount and this discount piece. Now this data was suppressed, and I can't show you the numbers, but that is where the other piece is shown here on table one.

So now we're going to jump over to the table two. So table one is 2017 to the 2012 distribution. It shows you the 2012 NAICS Codes. And we tally up the data, the 2017 data. It is still 2017 data but on these pieces, the 2012 pieces, the 2012 NAICS structure.

So, again, to start fresh we're going to click on the logo on the top left. We're going to go to advanced search, browse filters on the left, click Surveys, click Economic Census, Core Statistics. We're going to go find the bridge, table two the second one. Click it. Hit Search.

We're going to pick the top one which is the Current Release. I'm going to go over to customized table. I'm going to go to 123 Code and pick NAICS Code. I'm not going to pick the top I'm going to go down and find my retail trade. And I'm going to pick all six digits in retail trade. Close the window and it populates my data.

So here reading the title, sorry I wish you could see everything at once here. Reading the title again this is the Bridge Statistics Report on the 2012 NAICS basis with the 2017 distribution. So in 2012, if you remember from this example, 2012 had three independent codes. You had department stores except discount, discount department stores and warehouses.

So we're going to look at Warehouse, Clubs and Supercenters. You have the industry total. And in 2017 these are the two pieces. So if you, you know, this is part of, this is basically the data that's represented in the Comparative Reports. It's industry total of \$470 billion. So it went from 406 in 2012 to 470 and this is your 15% increase. And then for the 2012 discount department stores, it was broke...

Andy Hait: (Tara), I think we may have lost you. We don't hear you. Okay, I think we may have lost (Tara). (Devon), if you want to go ahead and give me the ball back I will sort of finish off with where we were. (Tara), are you there?

(Tara Dryden): I can hear you, Andy, I don't know that I got lost.

Andy Hait: Okay, I must have somehow I must have dropped the connection. Sorry, yes I need to reconnect. Sorry, go ahead and finish off.

(Tara Dryden): Okay. Can you give me the share button back please? Hi. Can you hear me okay? Sorry about that.

I was pretty much wrapped up almost anyway. I was just showing the last table, Bridge Table 2 which is the NA, 2012 NAICS, with the 27 distribution. As you can see the warehouse clubs just have the two pieces in 2012 which was the \$470 billion. And then it showed the discount department stores how it was split. And these are the two pieces. And this was the \$80 billion that went into the new code.

And basically like Andy was saying earlier you really just need to understand the NAICS changes when you're comparing data. And if there's any wording change or a NAICS Code change in any of the data that means something happened. And you guys really need to go in and investigate what went on.

And using the comparative table and the bridge tables will show you the impact of the changes and show you the original comparability in the comparative table just so you know exactly what's going on in that industry. And then the NAICS Web site will help explain it too. So that basically concludes the live demo so I was just about finished. And I will pass this back to Andy.

Andy Hait: So as you can see that the Census Bureau has an amazing amount of business data. The Economic Census is our most comprehensive of our business programs. And we would really love it to see you all using data from the Economic Census and helping us promote its use with other users.

We also recognize that our business data are most effective when you merge them with data from other programs. But as you are consolidating data across these different surveys you need to know something about the data that you're trying to merge to make sure that it is comparable.

Part of that comparability consideration is NAICS comparability, the industry classification systems. And as you've seen today NAICS changes can sometimes be very subtle or they can be significant. And these two

reports Comparative and Bridge Statistics help you as the data user make the decision whether that change that has occurred in the NAICS classification system is significant to you or not.

In the example that (Tara) walked through she showed you how the NAICS Code for supercenters and for Warehouse, Clubs and Supercenters the title that industry did not change but the code did change. And if you dug into that Bridge Report you would have seen that the reason why the code changed is because this industry now includes a piece of another industry.

And many of you might have said, okay, well, is adding that piece of that other old industry significant or not? As you saw in the demonstration of the bridge tables, \$80 billion of the total was accounted for by that piece of the industry that moved. So I would say, no, you should not really compare data on the 2012 NAICS basis to the 2017 NAICS basis for Warehouse, Clubs and Supercenters because that industry change that occurred in that five year period was so significant that a lot of the change that you are seeing in comparing the 2012 and 2017 data on their own individual basis a lot of that change was due to the actual classification system change.

Now the Comparative Report is a great resource because it helps you pretend as if that AN change never occurred. If the old definition of Warehouse, Clubs and Supercenters was - had never happened how comparable would the data, you know, data would have could have changed. And that change would have been real change not just, you know, a figment of the of the classification system changed.

Other times the changes may be less significant . And I'll give you a real life example of a case that occurred the last NAICS classification change. Companies that manufacture boats were classified in one industry but companies that manufactured inflatables, which would include dinghies and other types of inflatable boats, were actually not ever classified as boat manufacturers they were classified as a rubber or plastics products manufacturers based upon whether the boat was made out of rubber or made out of plastic.

The companies that make those inflatable boats felt very strongly that their boats were just as much a boat as the other types of boats that were classified as boat manufacturers. So when the NAICS classification change was made companies that manufacture inflatables, which any of you who are boaters know that that would include things like what they call rib's or rigid inflatable boats sort of a inflatable around the outside and a hard fiberglass or aluminum shell underneath there, those boats can be significant in their size and cost. So those boats were actually added to the definition of boat manufacturing.

As a user of the data you might have seen that change in the NAICS manual and said, oh wow. Okay, these inflatables have now been added how comparable are the data? Well when we finally published the final statistics on the Economic Census we noted that only 1% of the total amount of the boat manufacturing industry came actually from those inflatable boats.

That, yes, there was a classification change. And yes to some users that change might have been considered significant. But to many users that change, they could basically say, okay I can kind of ignore that change for my purposes because it's less than 1% of the total.

So we really want you all to be book marketing and using the NAICS Web site, using the Comparative and Bridge Reports as part of the resources that you keep in your data toolbox. Whenever I think of being a data user and how I use data when I'm comparing things over time I think of the NAICS manual and the Comparative and Bridge Reports as sort of like a level or a plumbbob that a carpenter would use.

They are important to me to help me build that house to make sure that it's plumb and level. And then the same way the Comparative and Bridge Reports provide that type of assurance that the data you're comparing is in fact comparable and helping you understand when there was no compatibility changes.

And (Tara) If you'd like to go to the last slide that would then bring us to our slide on the Q&A. I've included on the Q&A slide my email address and phone number and (Tara)'s as well. We would love to hear from you and we'd like to go ahead now and see if there's any questions that have come in on this phone.

Unfortunately, again, (Tara) I'm - I've been booted out of the WebEx. So it's going to try to reconnect me back in again but I think that probably by the time I get back in it's going to be too late. So let's see operator if we have any questions on the phone.

(Tara Dryden): Okay.

Coordinator: Yes. If you would like to ask a question please dial Star 1, unmute your phone and record your name clearly. If you need to withdraw your question please dial Star 2. Again, if you need to ask a question please dial Star 1. And it will take just a few moments for those questions to come through.

Andy Hait: Great, So while...

(Tara Dryden): Do you want me to stop sharing and look in the chat?

Andy Hait: So if you want to take a look at the chat you can actually keep sharing but then just sort of bring the chat over to your screen (Tara) so you can see it. I will say, while we're waiting for a couple of questions, see if there's any questions on the phone, I did notice a few of you asked some questions in the chat, some that I got to.

One, for example, was asking a question about a particular survey that we conduct, the Monthly Retail Trade Survey. And why is it that they were still publishing data for a particular industry that then had been subject to these changes to the NAICS, as I mentioned earlier in the presentation, not every single one of our academic programs at the Census Bureau published data on the full NAICS classification basis. Those



economic indicator surveys often publish sort of a hybrid version of NAICS, where they have combined certain industries together into consolidated code.

Usually because users of that economic indicator that need comparable data over long periods of time - five, ten, 15, 20 years of data to understand true economic cycles, they actually want the codes to be kept constant. So there's always sort of this back and forth between our economic indicator programs and others, about the classification system that they use.

So not every single Census Bureau program publishes on these NAICS codes. But I still would say that understanding the classification system itself, and understanding how those changes occur, is really important. Because again, it helps you understand comparability of data over time, it helps you look at information on new emerging industries.

So, for example, in the last economic census, we added a new NAICS code for solar, wind, geothermal, and biomass electric power generation. Those industries had matured to the point that they now warranted having their own industries. No longer considered emerging industries. And then also understand industries that are in decline. We don't make buggy whips in the United States anymore, so publishing data on the buggy whip manufacturing industry is probably not a worthwhile thing for us to be doing.

So I did notice a question about that. We also had some questions about the assignment of NAICS codes. At the Census Bureau most of our business surveys are establishment-based surveys, meaning we collect data from each individual business location of a company or of a firm. Because we don't collect data at the company or firm levels, we collect it at the establishment levels.

Now yes, there are a couple of programs that do collect data at the company and firm level. So those are a few exceptions. But in most of these other programs, it's collected at the individual establishment and we assign a six-digit NAICS code, a single six-digit NAICS code to each establishment of a company based upon what it does.

So we ask the business okay, what do you do; what do you make; what do you sell; what types of services do you provide? And we then assign the appropriate NAICS code to that particular business. Then the data, of course, are then tabulated for those industries and that's when we then see these published totals.

Another user also did ask the question about can I get a list of all the businesses assigned to a particular NAICS code or I think we did get a list of the NAICS codes assigned to every business in my county for example. The short answer is no, you can't. All of our data is subject to privacy protection rules, Title XIII of the US Code, that prevent us from releasing data for individual businesses.

So certainly, giving you a list of names and addresses and NAICS codes, would be a clear violation of those businesses' privacy. However, there

are a number of third-party data providers that don't have those same privacy protections and therefore, are able to publish names and addresses that we could never do at the Census Bureau.

And I always encourage users to use those other data sources, programs like Dun and Bradstreet, for example, just to name one. That they are a great resource of information. But I also encourage folks to compare the summary-level data published by Dun and Bradstreet and other providers, to our summary-level data.

As I mentioned, we typically do the NAICS assignment ourselves. NAICS can be complicated, so sometimes a business, they believe that they are classified in a certain NAICS code, but in fact, we would classify them in a different one based upon what they do. So we would definitely encourage people to do that.

(Tara), did you see any other items, any other questions that came in in the chat?

(Tara Dryden): Yes, sure. There are a couple more. So with the person who asked about the list of businesses they also asked what's the easiest way to find out what their NAICS code is? And basically, on the NAICS Web site you can do a search. So depending on what your activity is, many establishments do multiple types of business, but we code on basically your primary, or basically, whatever generates the majority of the revenue for your establishment is what you get classified in.

So you can go into the NAICS Web site and search on what activity you do, to find the NAICS code that you would be coded to. And when we send out the surveys you get to choose that NAICS code. There's another question about why does the current monthly retail sales still report discount department stores and non-discount?

And this is part of that note about comparing data sets. Most of the annual reports - I work on services, the annual report data is still on the 2012 NAICS basis. We usually have a sample that lasts anywhere from five to seven years, and we have not yet converted over to the new 2017 NAICS structure. So the annual data are still publishing on the 2012 NAICS structure, and that's why.

But that also - kind of them being a little bit delayed can actually help you because you can now see a little bit more of the comparability of the data moving from 2012 Census to where that data is in the annual report or the monthly report. But basically they have not converted over to the next NAICS structure, because we haven't redone the sample. They're usually a couple of years behind.

Okay. A question - is there a reason why the old NAICS code data from the prior years, are not combined into the new NAICS codes, and then I guess basically published? We do not take the 2012 data and retabulate it with the 2017 structure. As Andy said earlier, we're really big on our privacy and we have some major programs that suppress data.

As you saw on the tables, we had some rows of data there suppressed, to keep our companies private if - depending upon the reporting. And basically we just can't go backwards and tabulate data on the new structure because it's an intertwined web of how we're suppressing the data. And if we start doing that, then you can kind of drill down and untangle that web and possibly find out a number.

So we just choose to just move forward and just tabulate data on the current year. And we don't retabulate old data. Let me see what else. The NAICS assignment compared to SIC is the same in NAICS? It is the same. But SIC is the old system. But they both are the classification system. The NAICS system was developed - Andy did you say it was 1997, right?

Andy Hait: Yes.

(Tara Dryden): It basically - the NAICS system is just a more elaborate system, and it's with Canada and Mexico, so that we can link between the three countries. But the idea is the same, just the classification system. So Andy, in CBP there's a question - what did you mean by paid employee and CBP? Is this only W-2s or does it include 1099s?

Andy Hait: Yes. So as I - we were talking about the different programs that we conduct at Census, the business surveys. I mentioned that two of the annual programs where I send a lot of users to, is county business patterns or CBP, and non-employer statistics or NES. County business patterns covers businesses that have one or more paid employees.

And I typically think of those businesses as businesses who file the payroll tax forms with the IRS. To be an employer business you have to have at least one paid employee. In other words, at least one W-2 employee. You can, of course, also have 1099 workers, independent contractors that work for your business that you pay and that you give them at the end of the tax year, a 1099 form instead of a W-2 for. But you have to at least have one W-2 worker to be considered an employer business.

Businesses that don't have any W-2 workers, businesses that only have 1099 employees, and these are typically the businesses that we think of that file their business information on the 1040 Schedule C and Schedule SE, self-employed folks, those businesses are what is covered by non-employer statistics; that particular program.

So you have the employer businesses, almost 8 million employer businesses in the US, and you have the 24 million non-employer businesses, the self-employed people, 1099 workers in the non-employer statistics. The economic census program only covers employer businesses like with county business patterns. But I always tell people this makes NAICS discussion that we just had today, applies to both self-employed people and to employer businesses.

So any time they're looking at data from county business patterns and non-employer statistics over time, you have to keep in mind that there have been potentially NAICS changes that were made that could affect the comparability of that data. I will also just add one last point on that

note, that's kind of an important one. These NAICS changes, the classifications and changes that occurred to NAICS, are just one of the things you need to think about when you think about comparability of data.

Geography boundaries, for example, can change. The city - the town that I live in grew some a number of years ago, which made the boundaries across in Maryland different than what the boundaries across in n Maryland used to be prior to that annexation, if you will. So if I was comparing data over time for miles and towns, and I did not take into account that boundary change, I might think that the economy of my town grew substantially, when in fact some amount of that change was a figment of the boundary change.

Industry definitions, geography definitions, data variables sometimes, can also change. So these are just parts of the resources that we provide to help users make those informed comparisons. The last thing I want to say, and then we want to make sure we get back to our operator to see if there are any other questions, (Tara) and I are actually working on an America Counts story on this particular report, the bridging comparative (unintelligible) report.

So I would encourage you all to check out our America Counts Web site on Census Academy. And look for that particular story when it goes live. So Operator, do we have anybody on the phone who has any questions?

(Tara Dryden): Yes. And there's one more in the chat...

Coordinator: Thank you. And we are showing no questions.

(Tara Dryden): ...too.

Andy Hait: Okay.

(Tara Dryden): I'll wait for (Madison) to reply.

Andy Hait: I think (Madison) just said there were no questions on the phone.

(Tara Dryden): Oh, okay. So we do have a question for us to define significant perishable grocery sales. You can find more information on the NAICS manual about that. But basically, the old code was discount department stores and we have insignificant perishable and significant perishable. So perishable groceries are, you know, things that can go bad, basically.

So if you have a discount department store that sells a lot, a good portion, a good significant portion of perishable grocery stores, they were combined with warehouse clubs and supercenters. We cannot speak about any company names but, you know, the definition of department stores is stores that have different departments. And if you think of any stores that you've been to that sell a lot of perishable groceries, those are the ones that got combined into warehouse clubs and supercenters.

So that's all I can really say about that right now. And you can read the NAICS Website a little bit more about that. And then I will post the URL for the table in the chat. But if you remember, we went to Data.Census.gov. Then we survey and economic census, and then we went to core reports. And you'll find it right there at the top of that list. There were only seven or so tables in that listing.

I'm just double-checking if there's anything else. Please help me specifically on LED Signage Industry Census Survey. Okay. So I'm assuming you're asking for help on what is the NAICS code. I can email you or call you later about that one. I'm assuming you're asking what would be the NAICS code for that. I think that was everything. How long does it take to receive a NAICS if a company applies to receive one?

A company does not necessarily apply to receive a NAICS code. When a company starts up you register and you get an EIN with the IRS, right? And on there you may select your industry classification. Sometimes IRS only requires a minimum of a two-digit, basically what sector you're in. And then once you're selected for one of the surveys, we mail you a form and on there, based on at least that two-digit or however deep, whether you went to three or four-digits, you will be sent a form where you can select your NAICS classification.

There'll be a pre-list of classification codes. And if none of those fit, we usually have a write-in situation where you can write in what you do. And then when it comes back to us we will code it to the correct NAICS code. So there's not technically applying for a NAICS code. You're just selecting it on the form when you receive a survey. But you also - when you sign up for your EIN you can select it at that point in time.

And if you ever receive a form that doesn't pertain to what you do, just write in exactly what you do. And when the analyst gets the form back we will reclassify you to the correct NAICS classification. One more question - I have a business name and address; what is the easiest way to find out the respective NAICS code? Okay. Again, just like the earlier question, if you go on the NAICS Web site you can search by word or even just go into - if you know what sector in - if you're in retail or if you're in wholesale or if you're in services.

And you can just simply read through all of the different NAICS codes or you can search by words and it'll filter out some of the actions that you might be. Like if you put in hotel you're going to get regular hotels or casino hotels. It'll give you options. Okay. And this person's interested in, about construction homes in Texas. If you could email NDRI, we could answer you in a separate email, or call you about construction data in Texas.

How do third-party data aggregates know the NAICS code of individuals' businesses? Andy, can you handle that one? I'm not exactly sure where they get the information from.

Andy Hait: Yes. So nearly every third-party data provider that publishes data, either micro-level data, individual business-level data, or

summary-level data, conducts some type of measure of businesses where they ask the business to report their own particular NAICS code. They choose it themselves. And they then present that information along with the other statistics that say that they have for that business.

There are a lot of third-party data aggregators that also pull information from other administrative sources that might have things like the NAICS codes for a particular business. So like if you are operating a particular type of business in the area that requires you to have a business license for that type of business, sometimes those organizations require you to report your NAICS code and then they would then sell that list of businesses and their NAICS codes to others to be able to use.

The big point I made earlier was about the fact that NAICS is complicated. And that there are some times where businesses choose a NAICS code. They believe their business is classified in a certain industry and they get it right, and the industry is fairly simple and straightforward. The activities that they have at that business are pretty focused or concentrated in one particular type of business, type of industry. And they're able to assign their own NAICS code.

If you're a hospital you probably know that you're a hospital. But there are other businesses where the activities that they do are very diversified. You could have a car manufacturer that also makes boats in a wing of the building. And determining what is the appropriate NAICS code may not be as clear cut, because they do so many things at that facility, which is the dominant industry. Is it based upon the value, etc.? So I always tell folks to look at the summary-level data that we have at Census.

We don't have those names and addresses. Determine how many businesses in an industry that we said there were in that particular county let's say, and then compare that data, our data, to the data from other sources, to see how close they are. And I think sometimes when you find differences a lot of times it is because of this self-classification. As (Tara) did mention, we do allow businesses to choose their industry.

But when it comes to program like the economic census, if I said that I was a sweater manufacturer and I happened to pick the manufacturing code for knitting mills, which is - which would be sweater manufacturers who are buying yarn and turning that yarn into a sweater. If I then reported on my economic census form that I was not consuming any yarn and everything that I was consuming to make my sweater, was already pre-knit panels, the Census Bureau analyst would then say hey, well, then that means you're not a knitting mill, you're a cut and sew shop.

So we would actually change the NAICS code for that business from being the knitting mill NAICS code to the NAICS code for cut and sew shops, because that's really the correct NAICS code for that particular business. And that's a lot of the work that our analysts do, is in reviewing the statistics reported by a business.

We sometimes have to go in and make changes to the information that they've reported, because what they said they thought they did, isn't

actually what the other reported data that they said would indicate. Sometimes that involves having our analysts contact the business directly and say hey, I'm reviewing the data you reported on your economic census form. You said that you are a knitting mill, but yet you didn't report any yarn consumption to make your sweaters. You know, did you forget it?

And then when they then said oh, no, I didn't forget it, we don't buy yarn; we buy panels that another knitting mill makes for us. And then we say okay, thank you for the information, it appears that you actually should be classified in this other industry. So that's a lot of the value I think, that our staff bring to these economic data clients is because of that analysis that we do.

So yes, in fact, the first nine years of my career at Census, I spent working as a chemicals industry analyst in one of our program areas, reviewing data for the chemical industry. So (Tara), we are pretty long on time and we've gone past our hour. So Operator, did we have any questions maybe that came in on the phone?

Coordinator: Thank you. We're now showing no questions at this time.

Andy Hait: Okay. Well, I think (Tara), we should probably call it a day. Thank you all so much, everyone, for attending today's webinar, and for staying for these - this great group of questions. I apologize again for my computer having a bad day right at the end of the webinar and me having to drop. I'm glad I called in on the phone.

And again, if you have any questions that come to you afterwards, you have my email address and phone number. Same thing with (Tara)'s. Please feel free to contact us. We'd love to hear from you. And with that, I'd like to say thank you again, and have a wonderful afternoon.

(Tara Dryden): Yes. Thank you, everyone.

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